

# MMI

MEDICAL MICROBIOLOGY AND IMMUNOLOGY

Volume 178 · 1989

## Editorial Board

R. Rott (Editor-in-Chief),  
Giessen, Germany

A. C. Allison, Harrow, England

E. Habermann, Giessen, Germany

H. zur Hausen, Heidelberg, Germany

N. Ishida, Sendai, Japan

M. Katz, New York, USA

P. J. Lachmann, Cambridge, England

P. H. Lambert, Geneva, Switzerland

F. Lehmann-Grube, Hamburg, Germany

S. J. Martin, Belfast, N.-Ireland

L. J. Mata, Costa Rica

V. ter Meulen, Würzburg, Germany

M. E. Miller, Sacramento, USA

E. Norrby, Stockholm, Sweden

F. Ørskov, Copenhagen, Denmark

J. H. Pope, Herston, Australia

J. B. Robbins, Bethesda, Md., USA

V. A. Toma, Mmabatho, Southern Africa

Editor-in-Chief: R. Rott



Springer International

Founded in 1886 by Robert Koch, C. Flügge, F. Neufeld, M. Hahn, R. Doerr, H. Dold, R. Otto, H. Schlossberger etc. als Zeitschrift für Hygiene und Infektionskrankheiten. Vols. 148 to 151 were published under the title: Zeitschrift für Hygiene und Infektionskrankheiten, Medizinische Mikrobiologie, Immunologie und Virologie. From Vol. 152 to 156 the title was: Zeitschrift für Medizinische Mikrobiologie und Immunologie. Vols. 1-90 (1920) Leipzig, Veit & Co., later Berlin, Vereinigung wissenschaftlicher Verleger Walter de Gruyter & Co., from Vol. 91 on Berlin, Springer.

---

Submission of a manuscript implies: that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review, or thesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all coauthors, if any, as well as by the responsible authorities at the institute where the work has been carried out; that, if and when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher; and that the manuscript will not be published elsewhere in any language without the consent of the copyright holders.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e.g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, video disks, etc., without first obtaining written permission from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

*Special regulations for photocopies in the USA:* Photocopies may be made for personal or in-house use beyond the limitations stipulated under Section 107 or 108 of U.S. Copyright Law, provided a fee is paid. This fee is US \$ 0.20 per page, or a minimum of US \$ 1.00 if an article contains fewer than five pages. All fees should be paid to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0300-8584, the volume, and the first and last page numbers of each article copied. The copyright owner's consent does not include copying for general distribution, promotion, new works, or resale. In these cases, specific written permission must first be obtained from the publisher.

Typesetters: Elsner & Behrens, D-6836 Oftersheim

Printers: Konrad Tritsch, Druck- und Verlagsanstalt GmbH, D-8700 Würzburg

© Springer-Verlag Berlin Heidelberg 1989

Springer-Verlag GmbH & Co KG, D-1000 Berlin 33

Printed in Germany

# Contents

- Abraham R, Doerr HW, Braun W, Stemler M, Will H, Hess G, Schröder CH: Antibodies to hepatitis B virus x-protein in sera of patients with acute and chronic active hepatitis 187
- Adrian Th → Wigand R
- Aguero ME, Fuente G de la, Vivaldi E, Cabello F: ColV increases the virulence of *Escherichia coli* K1 strains in animal models of neonatal meningitis and urinary infection 211
- Al-Ahdal MN → Qadri SMH
- Arienzo F → Gilardini Montani MS
- Arora SK, Sehgal S: Identification of major antigens of *Leishmania donovani* using kala azar sera 81
- Barnet M → D'Amelio R
- Barsoum IS, Goodman TA, Hardin LK, Colley DG: Monoclonal antibody neutralization of unmanipulated *Chlamydia trachomatis* serovar A infection of human epithelioid cells (A-431) 113
- Bayer M → Maes R
- Benoit Ch, Beschin A, Desmecht M, Dekeyser P, Cocito C: Delayed hypersensitivity reactions by the mycobacterial antigen A60 and cutaneous testing in tuberculosis 105
- Bentivoglio C → Galdiero F
- Berlutti F → Visca P
- Beschin A → Benoit Ch
- Blobel H → Schwarz St
- Braun W → Abraham R
- Brighouse G → D'Amelio R
- Buschmann HG → Kienle E
- Cabello F → Aguero ME
- Carballo J → Criado MT
- Carratelli CR → Galdiero F
- Clark B → Haddow J
- Cocito C → Benoit Ch
- Colizzi V → Gilardini Montani MS
- Colley DG → Barsoum IS
- Criado J → Criado MT
- Criado MT, Sáinz V, Río MC del, Ferreirós CM, Criado J, Carballo J, Souto MJ: Failure of adherence to buccal cells and surface hydrophobicity as virulence markers in *Neisseria meningitidis* 53
- Czeglédý J, Gergely L, Hernádi Z, Póka R: Detection of human papillomavirus deoxyribonucleic acid in the female genital tract 309
- Dalmastrì C → Visca P
- D'Amelio R, De Rosa F, Pontesilli O, Dayal R, Brighouse G, Teggi A, Barnet M, Lambert PH: Hydatid disease: analysis of parasite antigens in circulating immune complexes and in preformed hydatid antigen-antibody complexes 177
- Davis GHG → Myatt DC
- Dayal R → D'Amelio R
- De Rosa F → D'Amelio R
- Dekeyser P → Benoit Ch
- Del Gallo F → Gilardini Montani MS
- Del Porto P → Gilardini Montani MS
- Dennin RH, Herb E: Immunological diagnosis in viral infections of the central nervous system: course of antibody titres against homo- and heterologous viruses 255
- Desmecht M → Benoit Ch
- Desselberger U → Haddow J
- DeStephano L → Numazaki K
- Divizia M → Superti F
- Doerr HW → Abraham R
- Dopatka H-D → Witte KH
- Ertürk M, Jennings R, Oxley KM, Hastings MJG: Effect of influenza A on phagocytic cell function 199
- Fasske E, Schröder K-H: Granulomatous pulmonary reactions after instillation of *Mycobacterium gordonae*. Light and electron microscopic investigations on the rat model 149
- Ferraz MMG → Gatti MSV
- Ferreirós CM → Criado MT
- Fuente G de la → Aguero ME
- Fujita I → Takayama N
- Gabrieli R → Superti F
- Galdiero E → Galdiero F
- Galdiero F, Carratelli CR, Nuzzo I, Bentivoglio C, Galdiero E: Further characterization of the impaired protective function in mice fed with lipid diet 297
- Ganguly NK → Goyal M
- Gatti MSV, Hara NH, Ferraz MMG, Pestana de Castro AF: Presence of group A and non-A rotaviruses in neonatal piglets in Campinas, SP, Brazil 347
- Gergely L → Czeglédý J
- Giesendorf B → Witte KH
- Gilardini Montani MS, Del Gallo F, Lombardi G, Del Porto P, Piccolella E, Arienzo F, Colizzi V: Limiting dilution analysis of T cell unresponsiveness to mycobacteria in advanced disseminated tuberculosis 235
- Goldmann H → Numazaki K
- Goodman TA → Barsoum IS
- Goyal M, Ganguly NK, Mahajan RC: Immunological response in experimentally reactivated toxoplasmosis in mice 269

- Hachimori K → Takayama M
- Haddow J, Clark B, Yawei Ni, Desselberger U:  
Biological function of the rotavirus protein VP4:  
Observations on porcine isolates from China  
163
- Hahn H → Hanski C
- Hannemann P → Witte KH
- Hanski C, Naumann M, Hahn H, Riecken EO:  
Determinants of invasion and survival of  
*Yersinia enterocolitica* in intestinal tissue. An in  
vivo study 289
- Hara NH → Gatti MSV
- Hardin LK → Barsoum IS
- Hastings MJG → Ertürk M
- Hellmann E → Moser I
- Herb E → Dennin RH
- Hernádi Z → Czeglédy J
- Hess G → Abraham R
- Homasson J-P → Maes R
- Honda T, Ni Y, Yoh M, Miwatani T: Production  
of monoclonal antibodies against thermostable  
direct hemolysin of *Vibrio parahaemolyticus* and  
application of the antibodies for enzyme-linked  
immunosorbent assay 245
- Inoue M → Kanoe M
- Jennings R → Ertürk M
- Kameoka Y → Takayama M
- Kaneda K → Takayama M
- Kanoe M, Yamanaka M, Inoue M: Effects of *Fusobacterium necrophorum* on the mesenteric microcirculation of guinea pigs 99
- Kasai N → Kato K
- Kato K, Nakane A, Minagawa T, Kasai N, Yamamoto K, Sato N, Tsuruoka N: Human tumor necrosis factor increases the resistance against *Listeria* infection in mice 337
- Khan GY → Qadri SMH
- Khuller GK → Mehta PK
- Kienle E, Buschmann HG: Specificity, cross-reactivity and competition profile of monoclonal antibodies to staphylococcal enterotoxins B and C<sub>1</sub> detected by indirect enzyme-linked immunosorbent assays 127
- Kubin M → Maes R
- Lambert PH → D'Amelio R
- Lombardi G → Gilardini Montani MS
- Maes R, Homasson J-P, Kubin M, Bayer M: Development of an enzyme immunoassay for the sero diagnostic of tuberculosis and mycobacterioses 323
- Maes R: Incidence of inapparent active mycobacterial infections in France detected by an IgG serological test based on antigen 60 315
- Mahajan RC → Goyal M
- Mehta PK, Khuller GK: Activation of mouse peritoneal macrophages by mannophosphoinositides of mycobacteria 21
- Mehta PK, Khuller GK: Comparative evaluation of the diagnostic significance of circulating immune complexes and antibodies to phosphatidylinositomannosides in pulmonary tuberculosis by enzyme-linked immunosorbent assay 229
- Minagawa T → Kato K
- Minamitani M → Takayama M
- Minamitani M → Takayama N
- Miwatani T → Honda T
- Moser I, Hellmann E: In vitro binding of *Campylobacter jejuni* surface proteins to murine small intestinal cell membranes 217
- Myatt DC, Davis GHG: Extracellular and surface-bound biological activities of *Vibrio fluvialis*, *Vibrio furnissii* and related species 279
- Nakane A → Kato K
- Naumann M → Hanski C
- Ni Y → Honda T
- Numazaki K, DeStephano L, Wong I, Goldman H, Spira B, Wainberg MA: Replication of cytomegalovirus in human thymic epithelial cells 89
- Nuzzo I → Galdiero F
- Orsi N → Superti F
- Ørskov F → Ørskov I
- Ørskov I, Williams PH, Svanborg Edén C, Ørskov F: Assessment of biological and colony hybridization assays for detection of the aerobactin system in *Escherichia coli* from urinary tract infections 143
- Oxley KM → Ertürk M
- Panà A → Superti F
- Pestana de Castro AF → Gatti MSV
- Piccolella E → Gilardini Montani MS
- Póka R → Czeglédy J
- Pontesilli O → D'Amelio R
- Qadri SGM → Qadri SMH
- Qadri SMH, Al-Ahdal MN, Qadri SGM, Khan GY: Cytomegalovirus detection by biotinylated DNA probes 135
- Riecken EO → Hanski C
- Rio MC del → Criado MT
- Röllinghoff M → Weninger J
- Sáinz V → Criado MT
- Sato N → Kato K
- Schäfer F → Schwarz St
- Schoerner C → Weninger J

- Schröder CH → Abraham R  
Schröder K-H → Fasske E  
Schwarz St, Spies U, Schäfer F, Blobel H: Isolation and interspecies-transfer of a plasmid from *Pasteurella multocida* encoding for streptomycin resistance 121  
Seganti L → Superti F  
Sehgal S → Arora SK  
Souto MJ → Criado MT  
Spies U → Schwarz St  
Spira B → Numazaki K  
Stemler M → Abraham R  
Superti F, Seganti L, Orsi N, Divizia M, Gabrieli R, Panà A: Effect of cellular function inhibitors on the infection of Frp/3 cells by hepatitis A virus 29  
Svanborg Edén C → Ørskov I
- Takayama M, Takayama N, Kameoka Y, Hachimori K, Kaneda K, Minamitani M: Comparative restriction endonuclease analysis of varicella-zoster virus clinical isolates 61  
Takayama N, Watanabe H, Fujita I, Minamitani M: Seroepidemiology of pertussis in the Japanese population 1  
Takayama N → Takayama M  
Teggi A → D'Amelio R  
Thaller MC → Visca P  
Tsuruoka N → Kato K
- Valenti P → Visca P  
Visca P, Berlutti F, Vittorioso P, Dalmastri C, Thaller MC, Valenti P: Growth and adsorption of *Streptococcus mutans* 6715-13 to hydroxyapatite in the presence of lactoferrin 69  
Vittorioso P → Visca P  
Vivaldi E → Aguero ME
- Wainberg MA → Numazaki K  
Wartenberg K → Weninger J  
Watanabe H → Takayama N  
Weninger J, Schoerner C, Wartenberg K, Rölinghoff M: Detection of cross-reacting epitopes on plasmid-encoded outer membrane proteins of enteropathogenic *Yersinia* by monoclonal antibodies 45  
Wigand R, Adrian Th: Intermediate adenovirus strains of subgenus D occur in extensive variety 37  
Will H → Abraham R  
Williams PH → Ørskov I  
Witte KH, Hannemann P, Dopatka H-D, Giesendorf B: Technical improvements of a commercial ELISA to detect antibodies against bovine herpesvirus 1 9  
Wong I → Numazaki K
- Yamamoto K → Kato K  
Yamanaka M → Kanoe M  
Yawei Ni → Haddow J  
Yoh M → Honda T